

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #37
Sept. 17-23, 2017

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Central Mass. Mosquito Control Project
Weekly Report- 9/17/17-9/23/17
EPI Week #38

Cumulative Surveillance Summary

Target Species	<i>Ae. vex</i>	<i>Cq. per</i>	<i>Cs. mel</i>	<i>Oc. can</i>	<i>Culex</i>	All Species
No. Pools	118	421	84	215	1089	3853
Total Specimens	474	17753	261	3472	18130	49059
No. Pools WNV +	0	0	0	0	20 [†]	20 [†]
No. Pools EEE +	0	0	0	0	0	0

[†]Pool of WNV+ *Culex* species collected in Milford on 7/27/17

[†]Pool of WNV+ *Culex* species collected in Ashland on 7/27/17

[†]Pool of WNV+ *Culex* species collected in Chelmsford on 8/1/17

[†]Pool of WNV+ *Culex* species collected in Millbury on 8/4/17

[†]Pool of WNV+ *Culex* species collected in Webster on 8/8/17

[†]Pool of WNV+ *Culex* species collected in Sturbridge on 8/8/17

[†]Pool of WNV+ *Culex* species collected in Millbury on 8/11/17

[†]Pool of WNV+ *Culex* species collected in Billerica on 8/15/17

[†]Pool of WNV+ *Culex* species collected in Milford on 8/17/17

[†]Pool of WNV+ *Culex* species collected in Fitchburg on 8/22/17

[†]Pool of WNV+ *Culex* species collected in Leominster on 8/22/17

[†]Pool of WNV+ *Culex* species collected in Dracut on 8/25/17

[†]Pool of WNV+ *Culex* species collected in Acton on 8/31/17

[†]Pool of WNV+ *Culex* species collected in Natick on 8/31/17

[†]Pool of WNV+ *Culex* species collected in Billerica on 9/6/17

[†]Pool of WNV+ *Culex* species collected in Chelmsford on 9/6/17

[†]Pool of WNV+ *Culex* species collected in Stow on 9/13/17

[†]Pool of WNV+ *Culex* species collected in Lancaster on 9/14/17

[†]Pool of WNV+ *Culex* species collected in Ayer on 9/15/17

[†]Pool of WNV+ *Culex* species collected in Devens on 9/15/17

Weather Summary (Northborough, MA): The weather for this particular week averaged 66.64°F with a recorded high temperature of 84.00°F and a recorded low temperature of only 59.90°F. For this week there was also a total of 0.17 inches of rain observed. Compared to the previous week, it was approximately 0.36°F cooler on average, and rained about 0.12 inches more. There has been 2.02 inches of rain accumulated in September, after 1.15 inches for the month of August.

CMMCP Mosquito Summary-

Target Species	Δ From Last Week*	Δ From Last Year	Predominant Trap Site(s)
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<i>Aedes vexans</i>	+153.6%	-60.78%	Ayer, Chelmsford
<i>Coquillettidia perturbans</i>	-52.53%	-64.50%	Stow, Holliston, Westford
<i>Culiseta melanura</i>	-59.52%	-59.38%	Webster
<i>Ochlerotatus canadensis</i>	-57.69%	-33.45%	Gardner, Hopedale

<i>Culex</i> Species	-46.46%	+39.57%	Ayer, Natick
All Species	-37.02%	-37.61%	Ayer, Natick, Stow

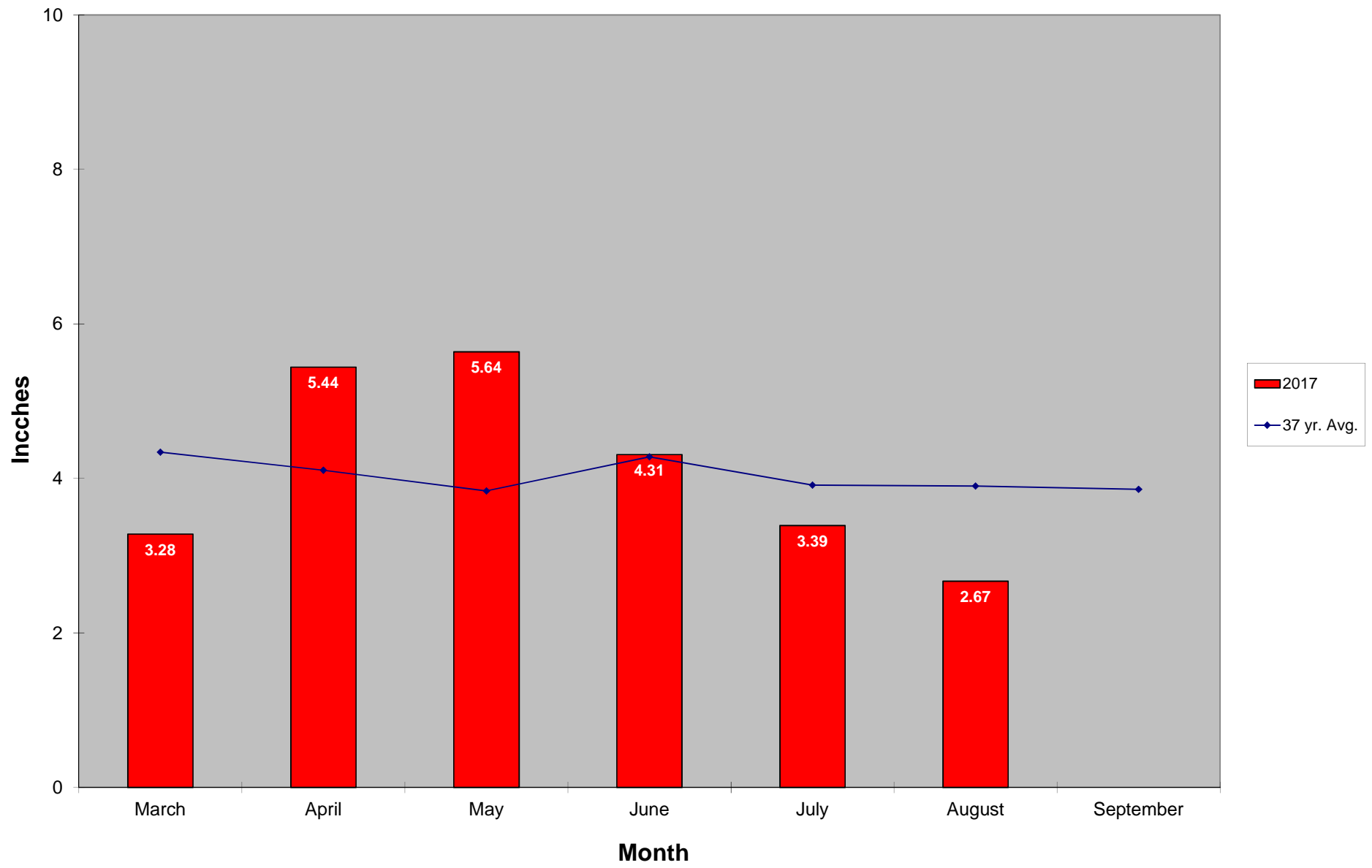
The predominant mosquito for the week was *Culex*, followed by *Coquillettidia perturbans*.

*Low late season numbers may contribute to these comparisons being not as significant as they appear

Epi week #38 narrative: The temperatures for EPI week 38 averaged approximately 0.36 degrees cooler than the previous week, with only 0.17 inches of precipitation observed. Overall collection numbers decreased by 37.02% from EPI week 37. All target mosquito species were collected in lower numbers from the prior surveillance period, except for *Aedes vexans*. To this point in the season, *Culex* remains the only target mosquito that has been collected in higher numbers compared to 2016. *Culex* is still the most abundant mosquito in the CMMCP service area, followed again by *Coquillettidia perturbans*. Four additional mosquito pools collected in EPI week 37 were determined to be WNV positive. These collections were all *Culex* mosquitoes, sourced from Ayer, Devens, Lancaster, and Stow. It was the first WNV positive collection for each of these towns this season. There were 103 eggs collected from CMMCP ovitraps for *Aedes albopictus* surveillance.

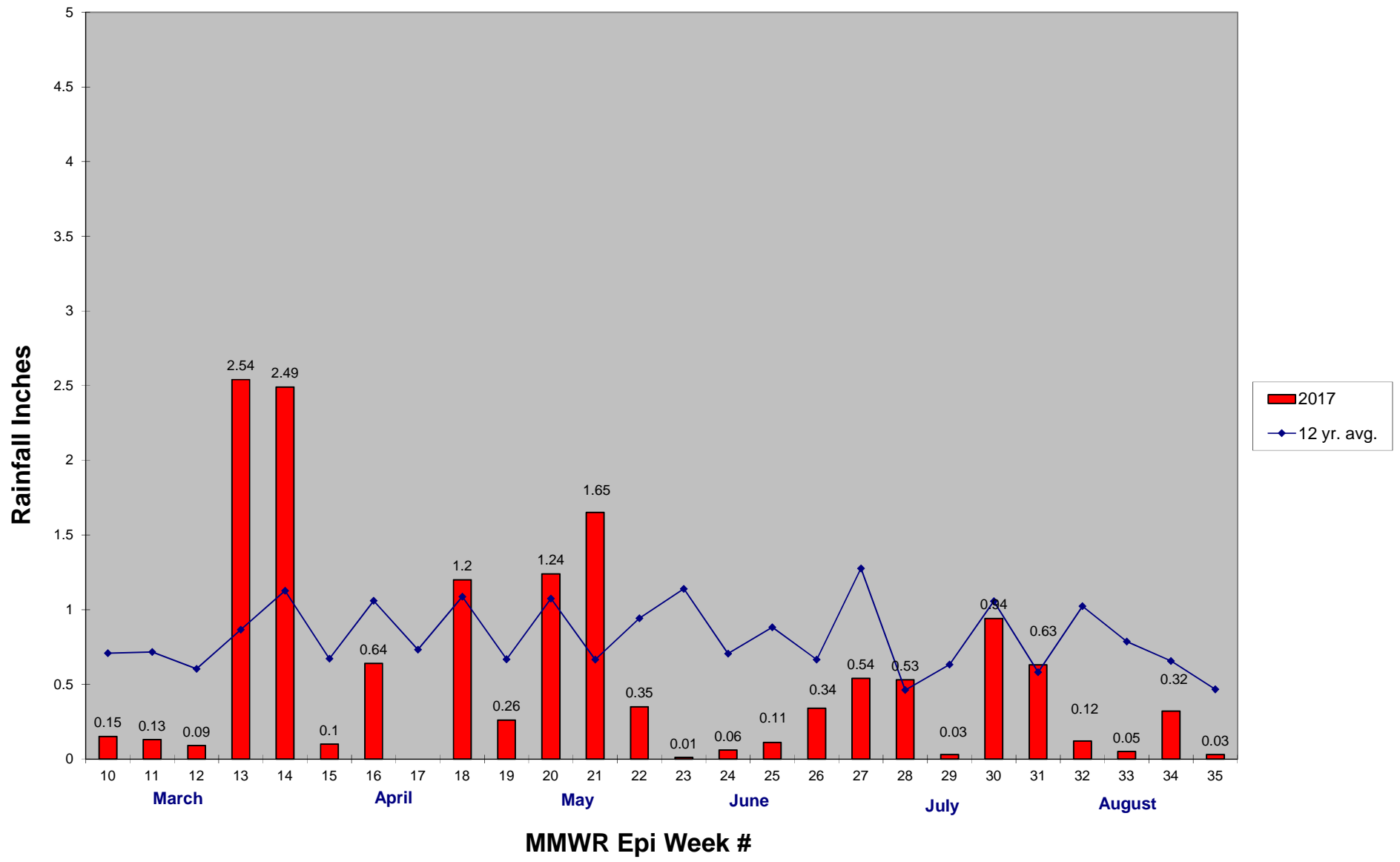
For the year, we received 175% more service requests than the 14 year average (16,108 in 2017 v. 9,185 14 yr. avg.), and 5.4% more than 2016 (16,108 in 2017 v. 15,281 in 2016). The standard adulticiding program has ended due to lower nighttime temperatures, declining mosquito populations and fewer service requests. Vector spraying was done September 21 after consultation with the LBOH in Ayer, Devens, Lancaster & Stow after confirmation of WNV in *Culex*. Monitoring continues at the sites where *Ae. albopictus* was identified.

2017 Mass. Rainfall Data vs. 37 Year Average*



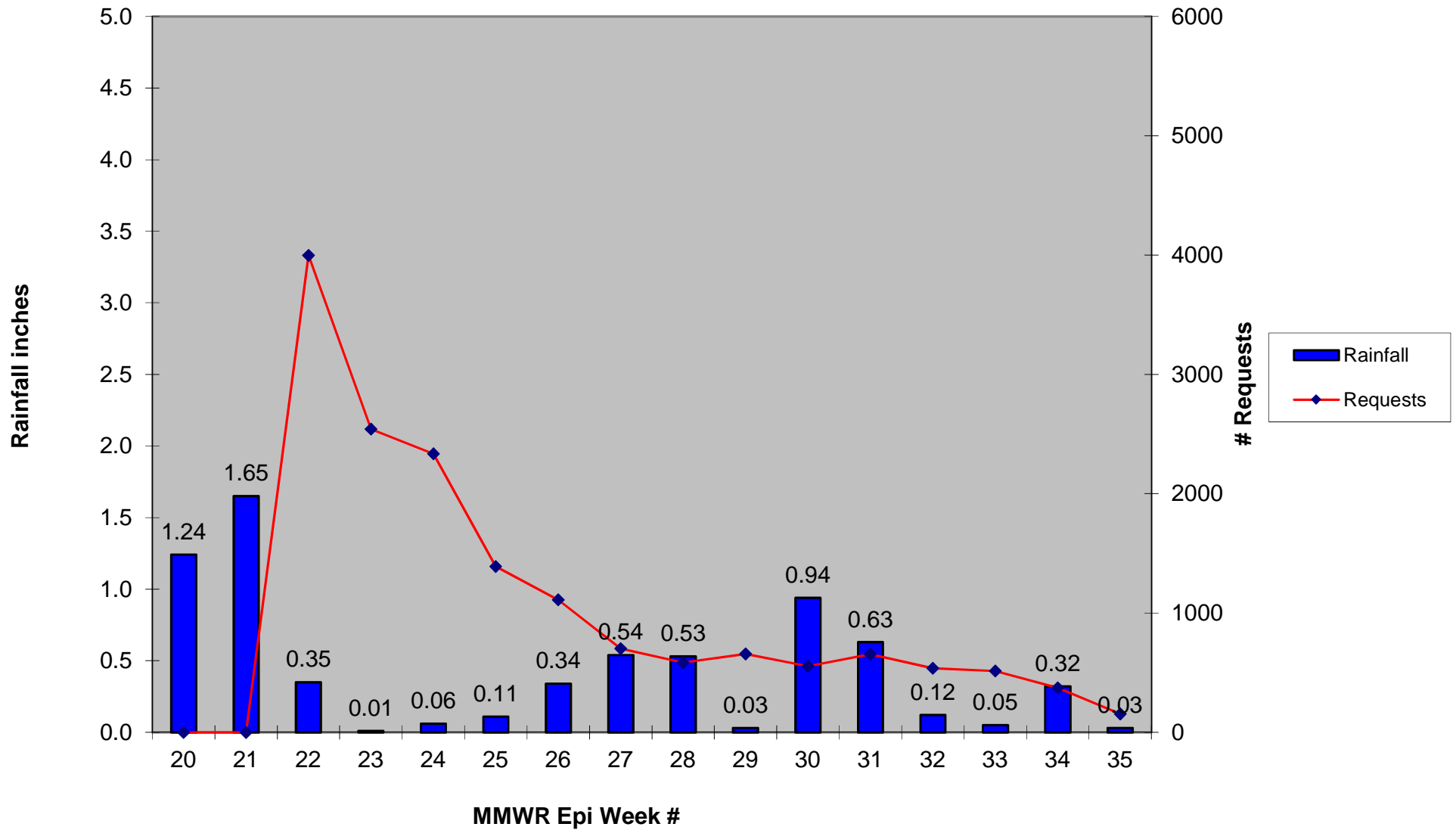
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2017 CMMCP Weekly Rainfall vs. 12 Year Average*

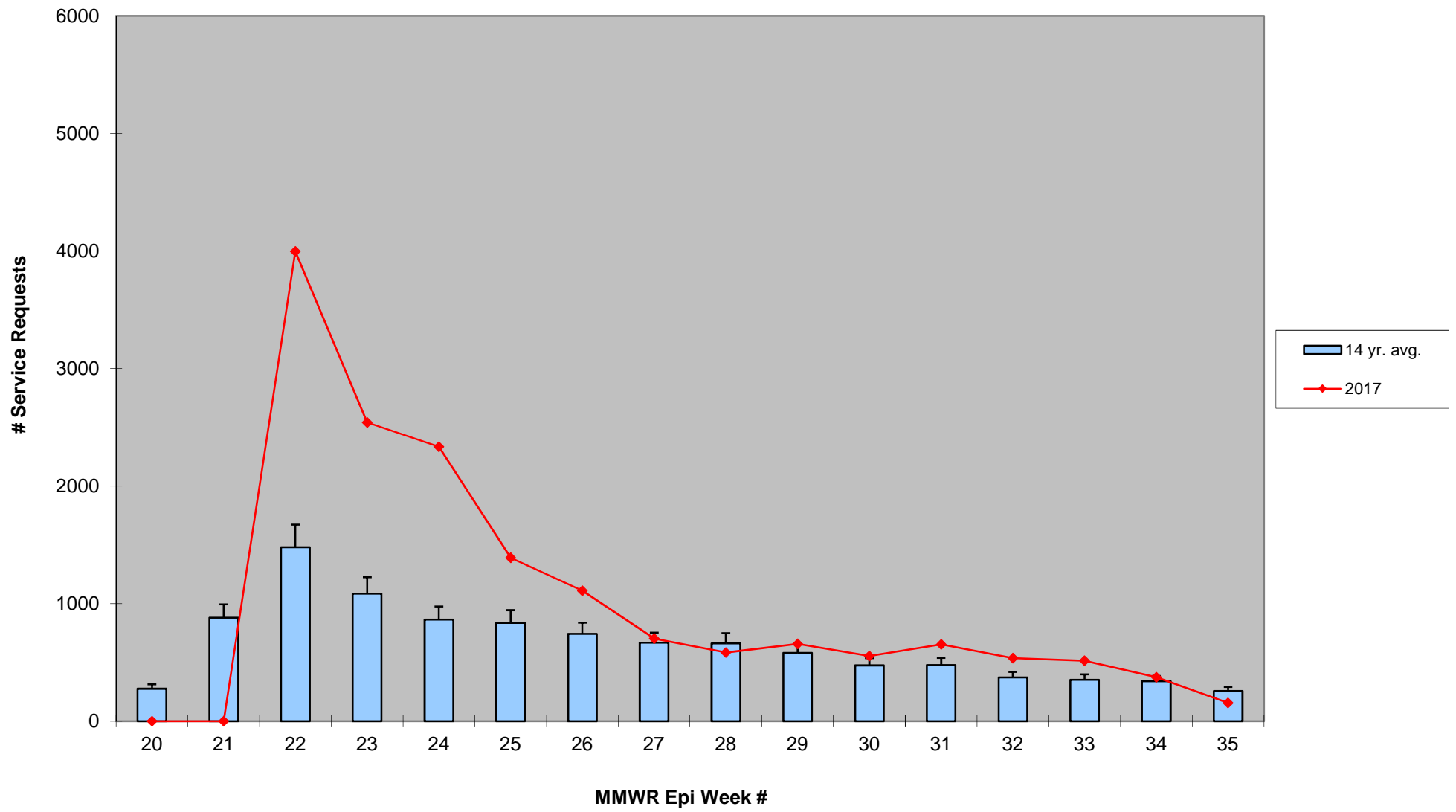


*source: CMMCP weather station Northborough, MA

2017 Rainfall vs. Requests



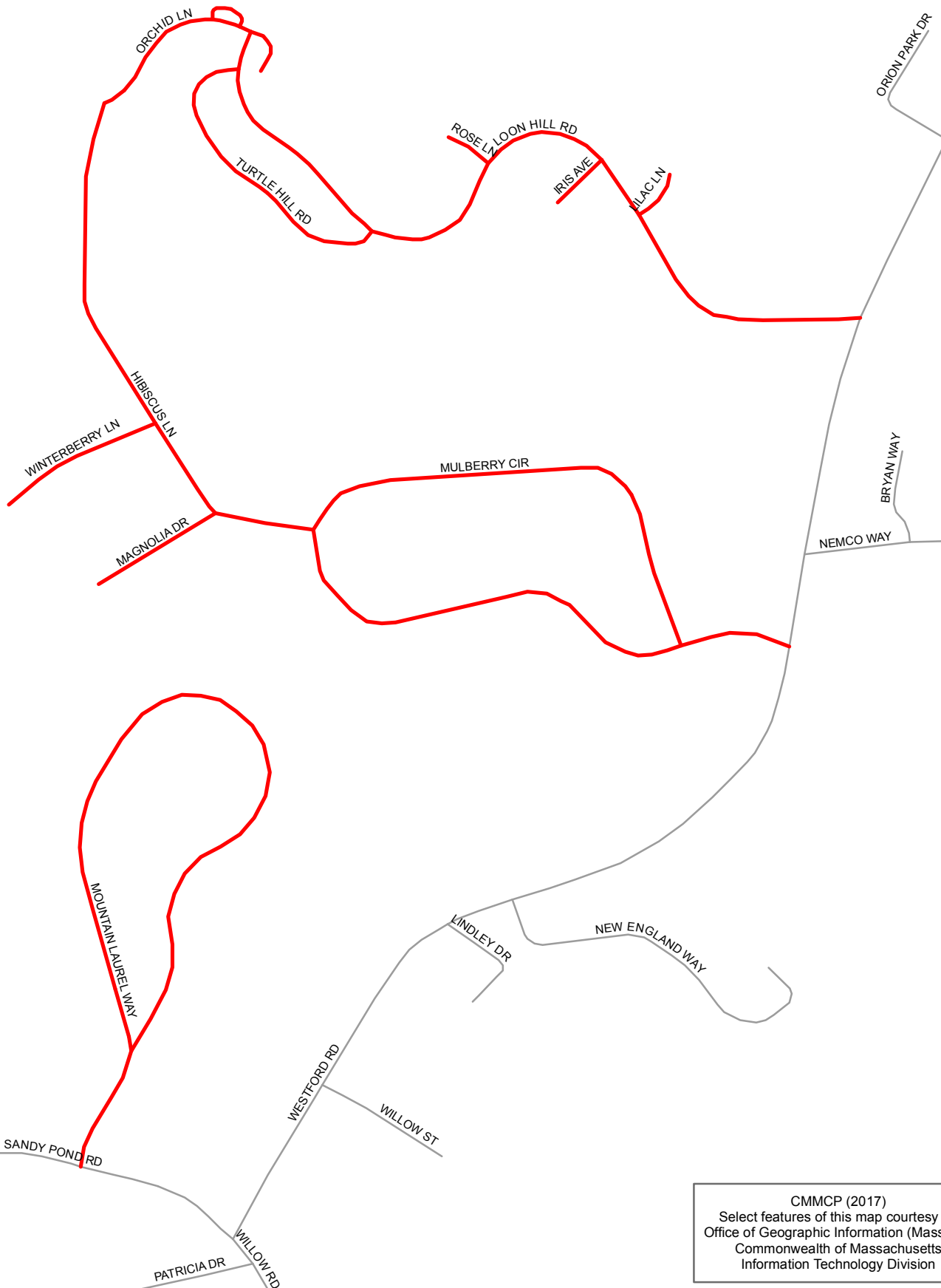
ULV Service Request History Comparison 2003-2017





GROTON

Ayer vector spraying Sept. 21, 2017



CMMCP (2017)
Select features of this map courtesy of:
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Devens vector spraying Sept. 21, 2017

HOSPITAL RD

GRANT RD

CHARLESTOWN ST

MACARTHUR AVE

NESTAL DR

GIVRY ST

QUEBEC ST

SARATOGA ST

BEAN ST

JACKSON PL

LAKE GEORGE ST

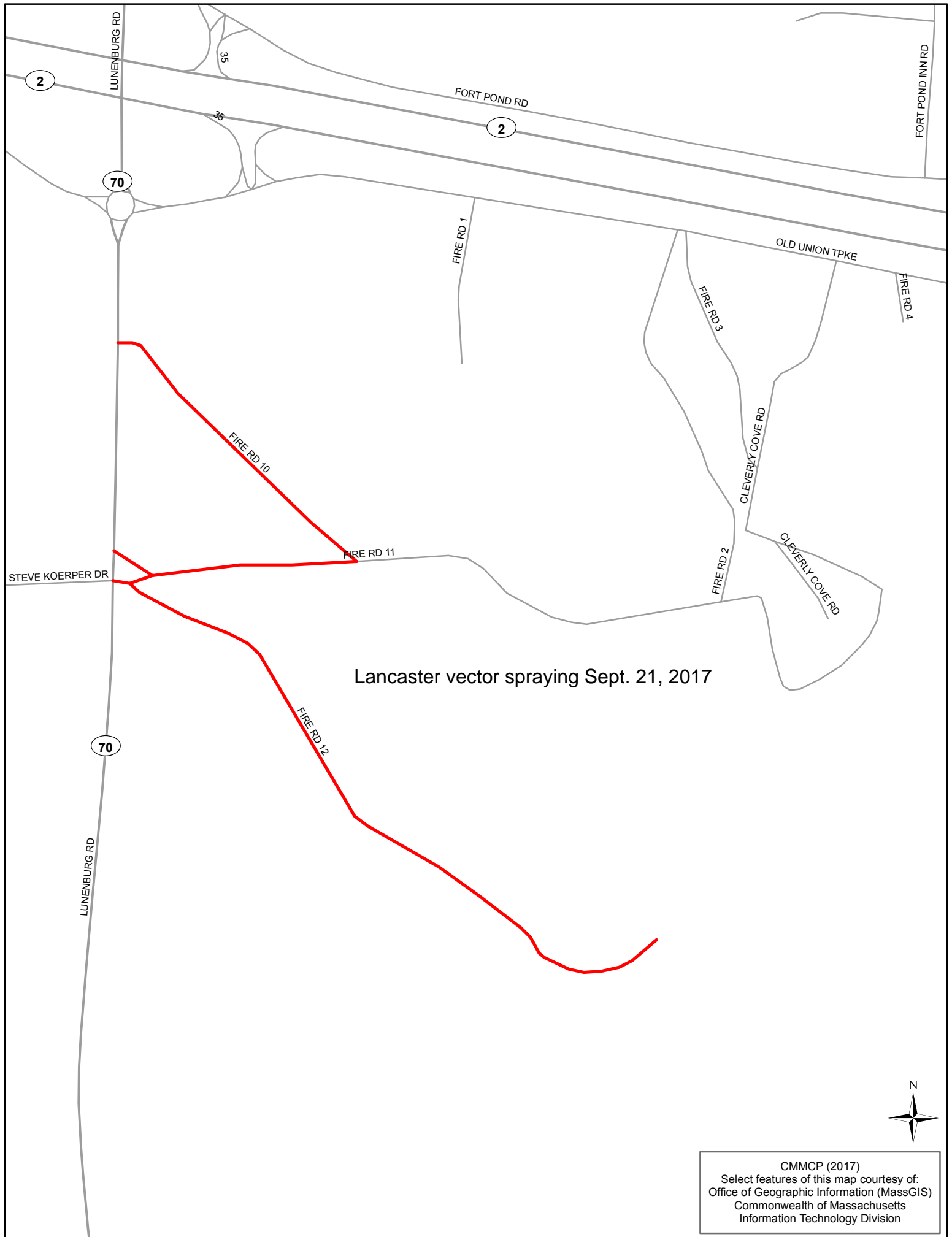
QUEENSTOWN ST

PATTON RD

SHERIDAN RD

JACKSON RD

CMMCP (2017)
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Office of Geographic Information (MassGIS)
Commonwealth of Massachusetts
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Lancaster vector spraying Sept. 21, 2017



CMMCP (2017)
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Stow vector spraying Sept. 21, 2017

